

44, 55	44, 55	44, 55	SOURCE CODE: UN/3137/64/000/081/0001/0010
AUTHOR: Zolototrubov, I. M.; Rastrepin, A. B.; Skoblik, I. P.			
ORG: Academy of Sciences UkrSSR, Physicotechnical Institute (Akademika Nauk UkrSSR, Fiziko-tehnicheskiy institut)			
TITLE: Investigation of energy partition in hydrogen plasma from a coaxial source			
SOURCE: AN UkrSSR, Fiziko-tehnicheskiy institut. Doklady, no. 181(P-033), 1964, chnika, 1-10			
TOPIC TAGS: plasma gun, hydrogen plasma, gas discharge spectrometry			
ABSTRACT: Energy partition in the hydrogen plasma produced in a coaxial gun is investigated in an apparatus that includes an ion energy spectrum analyzer. The plasma gun operates at 80 kA and the current period is 0.3-0.5 sec. At the gun anode the current is measured and the total amplitude of 1.8 m <sup>3</sup> of hydrogen is admitted into the highly evacuated chamber at various intervals before the application of the voltage pulse to the gun electrodes. The ions generated in the discharge are analyzed in the energy selection using the magnetic field to produce the reflection of the ions. The current is determined by the Hall crystal and the current is measured by a counter. The detector was used to determine the			

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ACC NR: AT5024119

time of formation of the ions in the gun by determining the time between the start of the discharge and the peak of the ion current. The energy spectrum for H<sub>1</sub> ions for an energy of 844.1 eV is given. Additionally, it is shown that when the time of formation of the ions is varied, the current maxima are shifted. The time difference between the first and second maxima is approximately 1.5 sec. The electron energy distribution function is also determined. Some differences in the energy spectrum are observed at different electron temperatures. The energy spectrum is plotted in Fig. 1. The energy loss is 844.1 eV. In this process the first two fragments

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 009/ OTH REF: 006

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L 8908-66 EMT(1)/ETC/EPEF(n)-1/2005  
ACI NM: AT5022293

SOURCE CODE: VIII/313T/6M/000/083/001/0010

1877-8 - *Castanea sativa* (L.) Mill., *Castanea*, *Noyaux*, *Châtaignier*.

Academy of Geological Sciences, Geological Hydrogeological Institute, Akademicheskaya Street, Moscow, Russia

<sup>12</sup> See also the discussion of the concept of "colonialism" in the lead article in this volume.

Следует отметить, что в ряде случаев введение в структуру языка новых грамматических единиц не приводит к улучшению языка, а наоборот, может привести к его ухудшению.

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L 8903-66

ACC NR: AT5022293

is consistent with the magnitude of the Larmor radius, which turns out to be comparable to the plasma gap diameter. (Ref. 1, part 1, note 6, figure 6)

2000 1000 500 250 125 62.5 31.25 15.625 7.8125 3.90625 1.953125 0.9765625 0.48828125 0.244140625 0.1220703125 0.06103515625 0.030517578125 0.0152587890625 0.00762939453125 0.003814697265625 0.0019073486328125 0.00095367431640625 0.000476837158203125 0.0002384185791015625 0.00011920928955078125 0.000059604644775390625 0.0000298023223876953125 0.00001490116119384765625 0.000007450580596923828125 0.0000037252902984619109375 0.0000018626451492309554765625 0.00000093132257461547773828125 0.00000046566128730773886953125 0.000000232830643653869434765625 0.0000001164153218269347173828125 0.0000000582076609134673586953125 0.00000002910383045673367934765625 0.0000000145519152283668396953125 0.00000000727595761418341984765625 0.000000003637978807091709923828125 0.000000001818989403545854961953125 0.0000000009094947017729274809765625 0.00000000045474735088646374048828125 0.0000000002273736754432318702441953125 0.00000000011368683772161593512209765625 0.000000000056843418860807967561048828125 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REF ID: A6006750

S/Eng(e)

IIP(e)

SOURCE CODE: UR/3137/69/DOC/190/001/0009

AUTHORS: Tolok, V. T.; Zolototrubov, I. M.; Kiselev, V. A.; Norkov, Yu. M.

TRANSLATOR: none

TOPIC: Rotation of a coaxial plasma source in a longitudinal magnetic field.

PUBLISHER: AN UkrSSR. Fiziko-tehnicheskiy institut. Doklady, no.

130/P-038, 1964. Rabota koaksial'nogo plazmennogo istochnika v

prodol'nom magnitnom pole, 1-8

TOPIC TAGS: plasma gun, plasma structure, plasmoid acceleration, plasma gun, hydrogen magnetic field

ABSTRACT: To produce a plasmoid with a relatively small number of impurities and neutral particles, the authors developed a new construction, in which the coaxial plasma gun is placed in a longitudinal

magnetic field, with an aim of having the rotation of the plasma in the crossed electric and magnetic fields symmetrize the discharge in

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L 24318-66

ACC NR: AT6006750

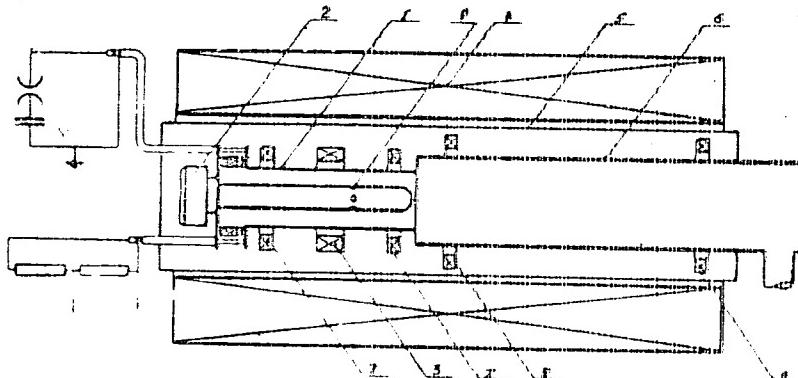


Fig. 1. Diagram of setup. 1 -- Gun,  
2 -- vacuum valve,  
3 -- field coil,  
4 -- solenoid, 5 --  
screen, 6 -- vacuum  
system, 7, 8 -- mag-  
netic probes, 9 --  
gas-inlet openings.

azimuth and increase the degree of contraction and the magnitude of

L 24318-66

ACC NR: AT6006750

SUB-SERIAL: 2001 ORIG-REF: 002 / PTH-REF: 003

SUPER DATE: none

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3/3 14

ACC NR: A16008850

SOURCE CODE: CR/0000/00/000/0116/0120

AUTHOR: Zolototrubov, I. M.; Ryzhov, N. N.

ORG: none

3)

B

TITLE: Distribution of pressure along a coaxial system after pulsed gas admission

SOURCE: AN UkrSSR. Magnitnye lovushki (Magnetic traps). Kiev, Naukova dumka, 1965, p. 120

TOPIC TAGS: manometer, pressure measurement, plasma gun, gas pressure / MI-10S  
manometer

ABSTRACT: The authors show that a MI-10S ionization manometer may be used for measuring pulsed pressures. This is a plane-parallel manometer with the cathode placed between the anode and the collector and may be used for measuring pressures from 1.03·10<sup>-3</sup> to 1.03·10<sup>-1</sup>. The manometer has a tungsten oxide cathode on an iridium base which is more resistant to poisoning than the usual tungsten cathode. The manometer has sharp permit operation in restricted spaces. Measurements showed that the sensitivity of the manometer is independent of the emission current. A comparison between readings of the MI-10S manometer and those of the LT-2 thermocouple manometer under stationary pressure conditions showed no significant differences. The average sensitivity in all pressure ranges was found to be 9.56·10<sup>-3</sup> N/m<sup>2</sup>. The error in pressure determination is no more than 12-15%. The instrument was used for mea-

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ACC NR: AT6008850

suring the distribution of pulsed pressure of a neutral gas along a coaxial plasma gun with the following geometric parameters: length 66 cm, diameter of the external electrode 6.5 cm, diameter of the central electrode 3 cm. Curves are given showing the pressure distribution for hydrogen along the gun at various times with respect to the initial opening of the valve. It was found that the velocity for propagation of the gas front reduces as the density of the front increases. The gas is propagated at a higher velocity as the quantity of the admitted gas is increased. The method described in this paper may be used for measuring pulse pressure in any systems and in any pressure ranges. Logarithmic amplifiers must be used for pressure variations in extremely wide ranges. Orig. art. has: 3 figures.

SUB CODE: 207

SUBM DATE: 20Oct65/

ORIG REF: 001/

0TH REF: 002

AT6020414

IJP(C)

JF/CD

(N)

SOURCE CODE: UR/0000/65/000/000/0165/0171

AUTHOR: Zolototrubov, I. M.; Kiselev, V. A.; Novikov, Yu. M.; Tolok, V. T.

ORG: none

64

B+/

TITLE: Operation of the coaxial plasma source in a longitudinal magnetic field

SOURCE: AN UkrSSR. Issledovaniye plazmennykh sgustkov (Study of plasma clusters).  
Kiev, Naukova dumka, 1965, 165-171TOPIC TAGS: plasma gun, plasma source, plasma magnetic field, plasma dynamics,  
longitudinal magnetic fieldABSTRACT: An attempt to develop a plasma source free of impurities by the use of a coaxial gun in a longitudinal magnetic field is discussed. The plasma gun and its operation is described, its energy source is a battery of condensers (1000  $\mu$ F) working at 5 kv, the working gas is hydrogen injected by a fast-acting valve. When the gun is operated in the magnetic field, the discharge current plate appears. This, together with the observation of the plasma ejection velocity, indicates plasma drift typical of crossed electric and magnetic fields. High speed photography reveals that the plasma generated when the magnetic field is applied is much more uniform than in the absence of the field. Spectroscopic analysis shows that the magnetic field inhibits very strongly the appearance of electrode material impurities found in discharges without the external field. It is planned to overcome the insufficient ionization and

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L 43800-66

ACC NR: AT6020414

low plasma velocity. Increasing the electric power input and the modified magnetic field. Orig. art. has: 6 figures, 1 formula.

SUB CODE: 20/

SUBM DATE: 11Nov65/

ORIG REF: 002/

OTH REF: 003

Card 2/2

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L R COI-00 EWT(1)/T IJP(c) JGS/OD/AT

ACC NR: AT6020412

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SOURCE CODE: UR/0000/65/000/000/0148/0156

77

Bt/

AUTHOR: Zolototrubov, I. M.; Kiselev, V. A.; Novikov, Yu. M.

ORG: none

TITLE: Current distribution in a coaxial plasma gun

SOURCE: AN UkrSSR. Issledovaniye plazmennykh sgustkov (Study of plasma clusters). Kiev, Naukova dumka, 1965, 148-156

TOPIC TAGS: plasma gun, plasmoid, high speed photography, PLASMA DISCHARGE, ELECTRODYNAMICS

ABSTRACT: The purpose of this work was to determine the current distribution in a coaxial plasma gun and the electrodynamic forces acting on the plasma. The current distribution was determined by a differential magnetic probe and the measurements were taken at different delays between the initial gas injection and time of the discharge. When this delay was 200-300  $\mu$ sec, discharge current formed several sheets arising due to partial current flows at insulation walls. The probe and fast streak photography data showing this effect are given in the text. Evidence of the trapped magnetic field between the current sheets was also found. It was found that for small delay times, only single current sheets are formed and that their velocity drastically increases during the current maximum. In addition to current sheets, observation of plasmoids was made and it was found that their velocities reached several times that

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"APPROVED FOR RELEASE: 03/15/2001

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ACC NR: AT6020412

of the sheets ( $8 \cdot 10^7$  cm/sec) showing that they are not accelerated by the electromagnetic interaction with the current, but rather by the drift-inducing fields. This was further substantiated by observing counter-streaming sheets and plasmoids in another set of experiments. Orig. art. has: 6 figures.

SUB CODE: 20/ SUBM DATE: 11Nov65/ ORIG REF: 002/ OTH REF: 003

Card 2/2 LJM

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065410016-6"

AP6018729

A1/DS

SOURCE CODE: UR/0057/66/038/006/1040/1048

AUTHOR: Zolototrubov, I. M.; Kiselev, V. A.; Novikov, Yu. M.; Rynkov, N. M.; Tolok, V. T.

ORG: none

TITLE: A coaxial plasma gun in a longitudinal magnetic field

SOURCE: Zhurnal tehnicheskoy fiziki, v. 36, no. 6, 1966, 1040-1048

TOPIC TAGS: plasma gun, hydrogen plasma, contamination, longitudinal magnetic field,

ABSTRACT: In an effort to improve the purity and the uniformity with regard to velocity, density, and total number of particles of the plasma bursts from a coaxial plasma gun, the authors investigated the influence of a longitudinal magnetic field on the performance of the gun. It was anticipated that the rotation of the plasma within the gun, due to the Lorentz force on the radial current in the longitudinal magnetic field, would improve the azimuthal uniformity of the current sheet. The diameters of the inner and outer stainless steel electrodes of the 70 cm long coaxial gun were 3 and 7 cm, respectively. The gas (0.1 cm<sup>3</sup> of hydrogen) was admitted through six openings in the inner electrode near its center, and the gun was fired by the 20 kV discharge of a 12 microfarad capacitor. The plasma gun was located in the uniform portion of the field of a 1.4 m long solenoid. The magnetic field rose to its maximum strength of up to 8 kOe in 28 millisecond and subsequently decayed exponentially with a time constant of 72 millisecond. The processes taking place within the plasma gun

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were investigated with the aid of a magnetic probe and by recording the discharge current, and the plasmas ejected from the gun were investigated with an external magnetic probe, a spectrograph, a photomultiplier, a monochrometer with the aid of which the intensities of different spectrum lines were displayed on an oscillograph, and a thermal probe. The rather involved processes that took place within the gun are discussed at some length. The rotation of the plasma gave rise to a magnetic trap within which a considerable portion of the gas was confined. Two plasma bursts were usually produced, but under some conditions it was possible to obtain only one burst containing some  $2 \times 10^{16}$  particles at a density of  $2.4 \times 10^{13} \text{ cm}^{-3}$  and moving with a velocity of  $3 \times 10^7 \text{ cm/sec}$ . The purity of the plasma bursts increased with increasing longitudinal magnetic field strength; at a magnetic field strength of 6.4 kOe there were no lines due to electrode materials in the spectrum, and the lines due to carbon, oxygen, and nitrogen were considerably weaker than in the spectra of plasmas produced without the magnetic field. It is concluded that with the aid of a longitudinal magnetic field one can obtain from a coaxial plasma gun pure high energy plasmas free of slow and contaminated tails, but at the cost of inefficient use of the energy stored in the capacitor bank. The authors thank O.M.Shvets, and Ya.F.Vol'kov for discussions and criticism. Orig. art. has: 3 formulas and 7 figures.

SUB CODE: 20 / SUBM DATE: 28Apr83 / ORIG. REV: 001 / OTH REV: 002

Card 2/2 hs

L 11005-66 ENT(1)/ENT(m)/T IJP(c) DS/AT  
ACC NR: AP6018730

SOURCE CODE: UR/0057/66/036/006/1049/1054

AUTHOR: Zolototrubov, I.M.; Skoblik, I.P.; Skibenko, A.I.; Ryzhov, N.M.

ORG: none

TITLE: Structure of the plasmas emitted by a coaxial plasma gun with different electrode polarities

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 6, 1966, 1049-1054

TOPIC TAGS: plasma gun, hydrogen plasma, plasma velocity, plasma density, electrode polarity, PLASMA STRUCTURE

ABSTRACT: The authors investigated the influence of electrode polarity and duration of the delay between gas injection and discharge of the gun on the structure of the plasmas ejected during the first half-period (6.5 microsec) of operation of a 60 cm long coaxial plasma gun with electrode diameters of 3 and 6.5 cm. The gas was admitted during the course of 80 microsec through a single opening in the center of the outer electrode, and the gun was fired after a delay ranging from 100 to 260 microsec by the discharge of a 20 kV, 12 microfarad capacitor. The plasmas were investigated in a 10 cm diameter, 1.2 m long glass drift tube with the aid of two diamagnetic probes, an 8 mm wavelength microwave interferometer, a 4 mm wavelength microwave beam, and a thermal probe. Under all conditions there was observed a jet of un-ionized gas with a

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velocity of  $2 \times 10^6$  cm/sec. When the inner electrode of the plasma gun was positive there were ejected three plasma bursts with velocities (when the delay time was 100 microsec) of  $5 \times 10^7$ ,  $1.5 \times 10^7$  and  $5 \times 10^6$  cm/sec and particle densities of less than  $10^{12}$ ,  $6 \times 10^{12}$ , and  $7 \times 10^{13}$  cm<sup>-3</sup>, respectively. When the inner electrode was negative there were only two plasma bursts, with velocities and particle densities (again for a delay time of 100 microsec) of  $3.5 \times 10^7$  and  $8.7 \times 10^6$  cm/sec, and  $3.5 \times 10^{12}$  and  $7 \times 10^{13}$  cm<sup>-3</sup>, respectively. The velocity of the slowest burst was almost independent both of delay time and of electrode polarity, and its density, also independent of electrode polarity, increased with increasing delay time. The velocities and densities of the faster bursts decreased with increasing delay time. The authors thank L.A.Dushin, V.T.Tolok, O.M.Shvets, and Ya.F.Volkov for discussions.

Orig. art. has: 2 formulas, 6 figures and 2 tables.  
SUB CODE: 20 SUBM DATE: 18Mar68 ORIG. REF: 006 OTH REF: 001

Card 2/2 hs

ZOLOTOV, A.

For new achievements in our work, Grazhd. av. no.387 Mr '61.

1. Nachal'nik Leningradskogo aeroporta.  
(Leningrad—Airports—Management)

ZOLOTOV, A.

...plus a businesslike approach. Sov.profsoiuzy 19 no. 3&14  
F '63. (MIRA 16s2)

1. Starshiy instruktor zhilishchno-bytovogo otdela Leningradskogo  
soveta professional'nykh soyuzov.  
(Leningrad—Construction industry—Auditing and inspection)

KALININA, N.; ZOLOTOV, A.

Pickled mushrooms. Rabotnitsa 37 no. 8-31 Ag '59.

(Cookery (Mushrooms))

(MIRA 13:1)

ZOLOTOV, A.A.

Insulating and winding unit. Biul. tekhn.-ekon, inform. Gos.  
nauch.-issl. inst. nauch. i tekhn. inform. 17 no.2:44-46 '64.  
(MIRA 17:6)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065410016-6

KARASEV, I.P.; ZOLOTOV, A.N.; POSTNIKOV, V.G.; FUKS, B.A.

Some problems in the field prospecting of fractured carbonate reservoir rocks in the Markovo oil field. Trudy VNII no.43: 144-156 '65. (MIRA 18:6)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065410016-6"

Three winters in the Arctic. Moskva, 1940. 43 p. (Bibliotekha "Stakhancytsy  
Arktiki," kn. 27) (49-34747)

C630.R826

1. Arctic regions. 2. Scientific expeditions.

I. Russia (1923- U.S.S.R.) Glavnoe upravlenie Severnogo morskogo puti.  
Politicheskoe upravlenie.

GORBACHEV, V.F.; ZOLOTOV, A.N.; BOVYSHEV, A.S.

Methodology of oil search and exploration in the Irkutsk amphitheater. Geol.nefti i gaza 9 no.2:24-27 F '65.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo gaza i treat Vostochnoibneftegeologiya. (MIRA 18:4)

ZOLOTOV, A. N.

Nurseries (Horticulture)

Mechanization of cutting of stocks in fruit nurseries. Sad i op., no. 4, 1952.

Monthly List of Russian Acquisitions, Library of Congress  
June 1952. UNCLASSIFIED.

ZOLOTOV, A. N.

Grafting

Mechanization of cutting of stocks in fruit nurseries. Sad 1 off., No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress  
June 1952. UNCLASSIFIED.

W  
Comparison of the Thermal Noises of Some Materials by  
a Zero Method. A. S. Tsvetkov, A. G. Lyubimov, and A. V.  
Zolotov (Doklady Akad. Nauk S.S.R., 1951, 80, 4), 683-  
685.—[In Russian]. Materials used were Nichrome, Cu, iron,  
Constantan, W, Ag, Ni, Mo, Fe, graphite, and 1% KCl soln.  
with Pt electrodes. The results obtained are in agreement  
with Nequist's formula  $w/4RT = k'$ , in which  $w$  is the  
spectral  $d$  of the noise,  $R$  the resistance of the specimen, and  
 $T$  its temp. The const.  $k'$  does not depend on the material  
or its condition, nor on  $R$  or  $T$ ; this does not agree with the  
results of Pumper (*ibid.*, 1949, 63, 277; *M.I.*, 20, 817).  
 $k'$  is probably equal to Boltzmann's const.—G. V. E. T.

*[Handwritten signature]*

<i>Chernaya geotekhnika: zhurnali slavy po teploti, sverchini, radioaktivnosti i sluchaynoi i iskorostenii v gipotezi metki (Radioactive Geophysics: Collection of Articles on the Use of Radioactive Radiation and Isotopes in Petroleum Geology)</i> . Moscow, Geotekhnika, 1959. 370 p. Extracts slip inserted.	1
<b>Ed.</b> : P.A. Alakseyev, professor, Doctor of Geological and Mineralogical Sciences; <b>Ed.</b> : N.P. Filatov, Tech. Adm.; A.S. Polozina.	
<b>PURPOSE:</b> This book is intended for petroleum geologists, geophysicists and scientists engaged in geological research who are interested in radiometric techniques of petroleum prospecting.	
<b>CONTENTS:</b> The collection contains 20 articles compiled by staff members and experts from the Laboratory for Nuclear Geology and Geophysics of the Petroleum Institute (now the Institute for Geology and Mineral Fuel Processing) of the Academy of Sciences USSR, the Laboratory for Radiometric Logging of the All-Union Scientific Research Institute of Geophysics, and the heads of councils for planning research projects for petroleum enterprises. The articles treat new material on radiometric surveys in petroleum geology, describe radiometric instruments (counters, etc.) for registering neutron and gamma rays, give the results of research with regard to rock strata, introduce fundamental methods of a new method for directly utilizing radioactive isotopes in the analysis of rock samples from petroleum-survey bore holes, etc. Problems of method in the study and interpretation of radiometric measurements in bore holes are reviewed, as well as the result of studies in the description of distribution in oilfields in the movement of petroleum and water in a stratum. Finally, a new method of surveying based on measuring the radioactivity of the surface of a prospective petroleum deposit is described. No parallelisms are mentioned. References accompany each article.	1-20
<i>Abelev'rod, S.M. Reycling Petroleum-Water Surfaces of Contact in Azerbaijan Oil Fields by the Method of Induced Radioactivity of Sodium</i>	103
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<i>Blinov, V.M. The Effectiveness of the Methods of Induced Radioactivity of Sodium and Chlorine to Compute the Oil-and Water-bearing Capacity of Petroleum Reservoirs</i>	110
<i>Bogoyev, E.N., G.I. Dement'ev, V.P. Denishev, V.P. Golikov, and V.O. Shchegoleva. Utilization of Spontaneous Emissions in the Hydrocarbonaceous Rocks of评价 the Porosity of Sand and Gritstone Collectors</i>	121
<i>Alakseyev, P.A., S.A. Denishev, I.V. Miller, and V.P. Orlitsk. The Use of Gamma-Ray Spectrometry to Investigate Bore Holes</i>	129
<i>Olsuf'yev, V.P., S.A. Denishev, and Yu. S. Schegoleva. Determination of the Point of Water-Petroleum Contact From Data Obtained Using the Petroleum Gamma Method With Scintillation Counters (PSC-2) and the Scintillation Balloons Method Based on Natural Isotopes</i>	136
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<i>Bul'da, Yu. V. Development of New Types of Radiometric Apparatus for Use in Petroleum Survey Operations</i>	174
<i>Tolstov, L.I. The Problem of Determining the Point of Water-Petroleum Contact Under Conditions of Gated Wells in Groundwater Deposits</i>	202
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<i>Alakseyev, P.A., V.I. Moshalov, and V.A. Filatov. The Problem of Radon and Uranium Content in Oil-Field Waters</i>	252
<i>Terezhev, V.I., A.I. Sushchakov, M.G. Ormanov, Yu. A. Romanov, and N.N. Groznyeva. Results of Investigation of Natural Gamma Fields in Oil-Bearing Sediments, Using Aerial and Ground Radiometric Survey Methods</i>	263

Colo. 10V, A.V.

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Zelenaya geofizika; Chernaya stoyka po ispol'zovaniyu radioaktivnykh isluchey i isotopov v analize zemli (Nuclear Geophysics: Collection of Articles on Geophysical Radiatometry and Isotope Analysis in Petrology). Moscow, Nedra, 1959. 370 p., frontispiece. RUB 1.50.  
Ed.: P.A. Alabagin, Professor, Doctor of Geology, Head, Petrovsky Institute of Geochemistry and Mineralogy, USSR Academy of Sciences.

**PROFESSOR A.R. KALANTRY, TECH. M.Sc., ENTOMOLOGIST AND KERATOLOGICAL SCIENCES:**  
PURPOSE: This book is intended for petroleum geologists, geophysicists and scientists engaged in geological research who are interested in the economic significance of petroleum prospecting.

**CONTENTS:** The collection contains 23 articles compiled by staff members and seismologists of the Laboratory for Nuclear Geology and Geophysics of the Petroleum Academy of Sciences (now the Institute for Geology and Mineral Processing) of the Ukrainian Scientific Institute for Geology and Mineral Processing of the All-Union Research Institute for Geological Prospecting and the heads of economic seismic material on petroleum surveys in Soviet Russia. The articles treat seismic instruments (counters, etc.) for registering seismic signals, describe methods of analysis of seismic signals with models of rock strata, introduce seismic arrays, a new method for effectively utilizing radioactive funds, methods of rock samples from petrologeous bore holes, etc. Problems of seismic surveys in the study and interpretation of seismic measurements of the earth's crust in tracing the occurrences of petroleum and water in the reservoirs of the earth's surface or a prospecting area are considered. The influence of seismic waves on the properties of petroleum deposits is discussed. 20 personal bibliographies, among which article 20 particularly

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A. D. SHELBY

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POLYMER LETTERS EDITION

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REVIEW ARTICLE

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SULFUR DIOXIDE EMISSIONS & HIGH VOLTAGE FLOW IN SULFUR DIOXIDE CIRCULATION FLUIDIZED BEDS

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Henry of Cremona

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APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065410016-6"

ZOLOTOV, A.V.

Use of potassium salts as standard radioactivity sources. Razved. i  
prom. geofiz. no.30:93-95 '59.  
(Prospecting--Geophysical methods) (Potassium--Isotopes)  
(MIRA 12:12)

ZOLOTOV, A.V.; ORLOV, L.I.

Relation between the electric resistance of strata and their  
water and petroleum saturation. Razved.i prom.geofiz., no.32:  
3-11 '59. (MILIA 13:4)  
(Tiumazy region--Electric prospecting)

ACC NR: AP6032695

SOURCE CODE: UR/0203/66/006/005/0907/0913

AUTHOR: Zolotov, A. V.

ORG: Volga-Ural Branch, All-Union Institute of Geophysics (Volgo-Ural'skiy filial  
Vsesoyuznogo instituta geofiziki)TITLE: Role of the shock wave in the formation of the geomagnetic disturbance caused  
by a large atmospheric explosion

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 5, 1966, 907-913

TOPIC TAGS: shock wave, geomagnetic disturbance, atmospheric explosion, meteorite,  
meteorite, magnetohydrodynamic effect, thermal ionization, meteorite shock wave,  
~~IONOSPHERE, ATMOSPHERIC DISTURBANCE~~ABSTRACT: On the basis of analysis of data obtained on the Tungusska meteorite of  
1908, the problem is examined as to whether the geomagnetic disturbance associated  
with the explosion could have been formed as a result of the passage of the shock  
wave through the ionosphere. Such geomagnetic disturbances, it was believed, might  
have been caused by increased thermal ionization of the ionosphere behind the shock-  
wave front and by the magnetohydrodynamic effect. Mathematical computations and  
arguments are introduced, however, that show that if an explosion be it chemical,  
nuclear, or other, occurs at heights lower than 70--75 km, the shock wave can not  
possibly have any substantial significance in the formation of the geomagnetic  
disturbance accompanying the explosion. It is concluded, therefore, that the  
Tungusska meteorite shock wave, which occurred at heights not exceeding 10 km, played

Card 1/2 UDC: 550.385

ACC NR: AF6032695

no role in the formation of the magnetic disturbance. The most likely cause of the disturbance associated with the Tunguska meteorite explosion was probably the flow of charged particles into a magnetic trap, which could have been formed either by the passage of the body through the ionosphere or as a result of the explosion. The author thanks Yu. D. Kalinin, A. I. Kolchin, and Yu. I. Koptev. Orig. art. has: 2 tables and 2 figures.

SUB CODE: 04/ SUBM DATE: 14Jul65/ ORIG REF: 031/ OTH REF: 005

Card 2 / 2

ZOLOTOV, A.V.

Some data obtained by investigating soil and plant samples in the  
region of the Tungus catastrophe of 1908. Dokl. AN SSSR 140  
no.1:103-106 S-0 '61. (MIRA 1419)

1. Volgo-Ural'skiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta geofizicheskikh metodov razvedki. Predstavлено akademikom  
M.A.Leontovichem.

(Podkamennaya Tunguska Valley--Meteorites)

ZOLOTOV, A.V.

New data on the Tungus catastrophe of 1908. Dokl. AN SSSR no.1:84-  
87 Ja '61. (MIRA 14:5)

1. Volgo-Ural'skiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta geofizicheskikh metodov razvedki, g. Olytyabr'skiy.  
Predstavлено академиком М.А. Леоновичем.  
(Podkamennaya Tunguska Valley---Meteorites.)

ZOLOTOV, A.V.

PHASE I BOOK EXPLOITATION SGV/5592

Vsesoyuznoye soveshchaniye po vnedreniyu radioaktivnykh izotopov i  
yadernykh izlucheniy v narodnom khozyaystve SSSR. Riga, 1960.

Radioaktivnyye izotopy i yadernye izlucheniya v narodnom  
khozyaystve SSSR; trudy Vsesoyuznogo soveshchaniya 12 - 16  
aprelya 1960 g. g. Riga, v 4 tomakh. t. 4: Poiski, razvedka  
i razrabotka poleznykh iskopayemykh (Radioactive Isotopes and  
Nuclear Radiation in the National Economy of the USSR; Tran-  
sactions on the Symposium Held in Riga, April 12 - 16, 1960, in  
4 volumes. v. 4: Prospecting, Surveying, and Mining of Min-  
eral Deposits) Moscow, Gostoptekhizdat, 1961, 284 p. 3,640  
copies printed.

Sponsoring Agency: Gosudarstvennyy nauchno-tehnicheskiy komitet  
Soveta Ministrov SSSR. Gosudarstvennyy komitiat Soveta Ministrov  
SSSR po ispol'zovaniyu atomnoy energii

Eds. (Title page): N. A. Petrov, L. I. Petrenko, and P. S. Savitskiy;  
ed. of this volume: M. A. Speranskij; Scientific ed.: M. A.  
Speranskij; Executive Eds.: N. N. Kuz'mina and A. G. Ionel';

Card 1/11

Radioactive Isotopes and Nuclear (Cont.)

SOV/5592  
102

Tech. Ed.: A. S. Polosina.

PURPOSE : The book is intended for engineers and technicians dealing with the problems involved in the application of radioactive isotopes and nuclear radiation.

COVERAGE: This collection of 39 articles is Vol. 4 of the Transactions of the All-Union Conference of the Introduction of Radioactive Isotopes and Nuclear Reactions in the National Economy of the USSR. The Conference was called by the Gosudarstvennyy nauchno-tehnicheskiy komitet Sovet Ministrov SSSR (State Scientific-Technical Committee of the Council of Ministers of the USSR), Academy of Sciences USSR, Gosplan SSSR (State Planning Committee of the Council of Ministers of the USSR), Gosudarstvennyy komitet Svetov Ministrov SSSR po avtomatizatsii i mashinostroyeniyu (State Committee of the Council of Ministers of the USSR for Automation and Machine Building), and the Council of Ministers of the Latvian SSR. The reports summarized in this publication deal with the advantages, prospects, and

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## Radioactive Isotopes and Nuclear (Cont.)

SOV/5592

development of radioactive methods used in prospecting, surveying, and mining of ores. Individual reports present the results of the latest scientific research on the development and improvement of the theory, methodology, and technology of radiometric investigations. Application of radioactive methods in the field of engineering geology, hydrology, and the control of ore enrichment processes is analyzed. No personalities are mentioned. There are no references.

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Alekseyev, F. A. Present State and Future Prospects of Applying the Methods of Nuclear Geophysics in Prospecting, Surveying, and Mining of Minerals 5

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ZOLOTOV, A.V.; MUKHAREMKO, N.K.

The intrinsic background and spectral sensitivity of discharge-type gamma counters. Razved. i prom. geofiz. no. 35; 29-34 '60,  
(MERA 13:12)  
(Oil well logging, Radiation)

88568

9/020/61/136/001/016/037  
B019/B056

3.1550 (1057, 1062, 1129)

AUTHOR: Zolotov, A. V.

TITLE: New Data on the Tunguska Catastrophe in 1908

PERIODICAL: Doklady Akademii nauk SSSR, 1961, Vol. 136, No. 1, pp. 84-87

TEXT: The data published here were determined in 1959. The nature of the destruction to trees is dealt with, which all point exactly to one center. A comparison with experimental explosions make it possible to estimate the energy liberated in the course of the catastrophe at  $4 \cdot 10^{25}$  erg. As in the actual center of the destruction timber still stands within a range of roughly 5 km, it is assumed that the explosion took place in the air (not less than 5 km). The ratio between the amplitudes of the explosion wave and the ballistic wave is investigated by studying the destructions to trees. As follows from these investigations, mainly in the zone of incidence of the cosmic body, which were carried out 35-40 km distant from the center, interaction between the two waves exists. From considerations concerning the pressure conditions in the wave fronts, conclusions are drawn as to the velocity of the body. A velocity of 3 km per sec is

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New Data on the Tunguska Catastrophe in 1908

S/020/61/136/001/016/037  
B019/B056

obtained by means of a formula by G. I. Pokrovskiy. The same velocity is obtained by means of a formula given by L. D. Landau (Ref. 6). As temperature of the body,  $4000-5000^{\circ}\text{C}$  is given. From a comparison with other solar bolides, the author arrives at the conclusion that the velocity of the body most certainly did not exceed 3-4 km/sec. Three estimations of the liberated energy were carried out, in which the author bases upon the effect of burning on trees, of the burns suffered by persons, and upon light phenomena during the explosion.  $1.5 \cdot 10^{23}$  erg,  $1.1 \cdot 10^{23}$  erg, and  $2.8 \cdot 10^{23}$  erg were obtained for the liberated energies. These three independent estimations thus yield values which agree satisfactorily with one another. S. B. Semenov and P. P. Kosolapov are mentioned. There are 2 figures and 8 Soviet references.

ASSOCIATION: Volgo-Ural'skiy filial Vsesoyuznogo nauchno-issledovatel'skiy instituta geofizicheskikh metodov razvedki g. Oktyabr'skiy  
(Volga-Ural Branch of the All-Union Scientific Research Institute for Geophysical Prospecting Methods, Oktyabr'skiy)

PRESENTED: July 14, 1960, by M. A. Leontovich, Academician

Card 2/3

ZOLOTOV, B.

The only one in the world. Okhr. truda i sots. stiukh. 6 no.9:  
6-7 S '63. (MIRA 16:10)

ZOLOTOV, B.

Improve the training of navigators. Rech. transp. 24 no.11:  
42-43 '65. (MIRA 19:1)

1. Nachal'nik Sudokhodnoy inspeksii Volzhskogo basseynya.

ZOLOTOV, B. A.

B. A. Zolotov, Sbornik voprosov i zadach po fizike dlya 6 i 7 klassov [Collection of Physics Questions and Problems for the sixth and seventh grades], Uchpedgiz, 10 sheets

Contains 935 questions and problems for the sixth and seventh grade physics course. It corresponds to the standard text book. The questions and problems reflect the current Soviet technology. Solution of many of the questions and problems requires independent observations and experiments by the pupils. Intended as an aid for the teacher.

SO: U-6472, 12 Nov 1954

PARLASHKEVICH, N.Ya.; VYKHODTSEV, I.A.; ZOLOTOV, B.D.

Automatic potentiometric control in the production of indo-*e*-toluidine.  
Khim.prom.no.4:242-244 Je '56. (MIRA 9:10)  
(Potentiometric analysis) (Toluidine) (Electrodes)

SISOYAN, Grigoriy Artem'yevich; ZOLOTOV, B.V., red.; KISELEV, T.I.,  
red.izd-va; ISLEN'T'IEVA, P.G., tekhn.red.

[Electric arc in electric furnaces] Elektricheskaya duga  
v elektricheskoi pechi. Izd.2., ispr. i dop. Moskva, Gos.  
nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii,  
1961. 414 p.

(Electric arc)

(Electric furnaces)

ZOLOTOV, B. V.

137-58-5-9070D

Translation from. Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 46 (USSR)

AUTHOR: Zolotov, B. V.

TITLE: An Investigation of the Operation of Electrical Contactor-type  
Relay Regulators Employed With Thermal Ore Furnaces  
(Issledovaniye raboty tokovykh releyno-kontaktornykh regulya-  
torov rudnotermicheskikh pechey)

ABSTRACT: Bibliographic entry on the author's dissertation for the de-  
gree of Candidate of Technical Sciences, presented to the Mosk.  
energ. in-t (Moscow Power Institute), Moscow, 1957

ASSOCIATION: Mosk. energ. in-t (Moscow Power Institute), Moscow

1. Furnaces--Operation 2. Electric relays--Applications

Card 1/1

18 FEB 1986

SVENCHANSKIY, Aleksandr Danilevich; ZOLOTOV, B.V., red.; LARIONOV, G.Ie.,  
tekhn. red.

[Industrial electric furnaces] Elektricheskie promyshlennye pechi.  
Moskva, Gos. energ. izd-vo. Pt. 1. [Resistance furnaces] Pechi  
soprotivleniya. 1958. 287 p.  
(MIRA 11:11)  
(Electric furnaces)

ZOLOTOV, B. V. Cand Tech Sci -- (diss) "Study of the operation of electric current [contractor type] relay regulators of thermal ore furnaces." Mos, 1957.  
<sup>(with graphs)</sup>  
18 pp. (Mos Order of Lenin Power Engineering Inst im V. M. Molotov.  
Chair Faculty of Electrothermal Plants). (KL, 43-57, 88)

ZOLOTOV, B.V.

Investigation of the conditions for automatic control of the power  
of heat-treatment furnaces. Trudy IGEI no. 28:113-130 '56.  
(Electric furnaces) (Automatic control) (MIRA 10:6)

ZOLOTOV, B.V., kand. tekhn. nauk; SMELYANSKIY, M.Ya., kand. tekhn. nauk, dots., red.

[Arc furnaces: Electrical characteristics of arc furnaces; summary of lectures] Dugovye pechi: Elektricheskie kharakteristiki dugovykh pechей; konspekt lektsii. Moskva, Mosk. energeticheskii in-t, 1964. 114 p. (MIRA 18:5)

SOV/112-58-2-2396

Translation from: Referativnyy zhurnal, Elektrotehnika, 1958, Nr 2, p 100 (USSR)

AUTHOR: Zolotov, B. V.

TITLE: An Investigation of the Automatic Power Regulation of a Thermal Ore Furnace (Issledovaniye usloviy avtomaticheskogo regulirovaniya moshchnosti rudno-termicheskoy pechi)

PERIODICAL: Tr. Mosk. energ. in-ta, 1956, Nr 28, pp 113-130

ABSTRACT: The requirements have been investigated for a current-type relay-contactor automatic power controller to be applied to a large ore-thermal furnace operating on the no-slag method. The current on the high-voltage side of the furnace transformer, in the "delta-connected electrodes" supply circuit, was selected as the regulation parameter. The characteristics of current vs. electrode feed (of the same or an adjacent phase) were determined experimentally; in the processing of the experimental data, statistical functions for the mathematical expectation of the current and its rms deviations were found. Three characteristic sets of current-time variation conditions for various

Card 1/2

SOV/112-58-2-2396

An Investigation of the Automatic Power Regulation of a Thermal Ore Furnace

charge-arc resistance ratios were found, for a stationary electrode, for manual control, and for automatic control. It was discovered that the relationship between a small electrode travel and the current deviation can be taken as linear and that, in view of the many factors influencing the furnace operating conditions, a current variation cannot always be compensated by changing the position of the electrode. An automatic regulation system should ensure the slipping of electrodes at the rate of 0.05-0.1 m/min, but not more than 0.22-0.235 m/min, and should have an adjustable neutral zone that would prevent overloading of the starting equipment at sudden current changes.

B.S.B.

Approved for Release under the Freedom of Information Act

Card 2/2

L 09144-67 EWT(m)/EWP(t)/ETI IJP(a) JD/JQ  
ACC NR: AR6027496 SOURCE CODE: UR/0137/66/000/004/B015/B015

AUTHOR: Smelyanskiy, M. Ya.; Zolotov, B. V.; Tsiehevskiy, V. P.; Zhigalko, Ye. K.;  
Kuvaldin, A. B.

TITLE: Survey of work done by the "Electrothermal Installations" Department in the field of investigation and industrial application of the high-intensity electric arc.

SOURCE: Ref. zh. Metallurgiya, Abs. 4B93

62  
61

REF SOURCE: Elektrotermiya. Nauchno-tekhn. sb., vyp. 46, 1965, 36-42

TOPIC TAGS: electric arc, metal purification, refractory metal

ABSTRACT: Research has been in progress since 1961 in the "Electrical Installations" Department of Moscow Power Engineering Institute on the working process in installations for arc-heating of gases together with development of methods for designing installations suitable for industrial application. Investigations of the arc-heating process are described for gases with axial stabilization of the arc in a cylindrical channel and data are given on the effect which the type of working medium has on the electrical and power characteristics of the process. An installation is developed for producing refractory metals from their compounds. This installation was used for conducting experiments on carbothermic reduction of niobium in a plasma jet. Raw material in the form of niobium pentoxide and carbide pressed into a billet 6-8 mm in diameter

Card 1/2

UDC: 669:621.365.6:533.9

L 09144-67

ACC NR: AR6027496

was fed by the mechanism into a plasma jet at a rate of 2-4 cm/min. The carbon concentration in the reaction products was from 0.38 to 1.1% with a reduction to 0.14% after the second remelting, which shows that metallic Nb and Ta may be produced in ingots. 9 illustrations, bibliography of 11 titles. V. Priyanikova. [Translation of abstract]

SUB CODE: 11

Card 2/2 net

ZOLOTOV, D. I.

Technology

Laboratory equipment for testing building materials, Moscow, Ugletekhizdat, 1951.

9. Monthly List of Russian Accessions, Library of Congress, December 1952 INDEX Uncl.

ZOLOTOV, E.B., inzh.; MIKHELEV, A.A., doktor tekhn. nauk

Determining the physicomechanical characteristics of wheat  
flour dough by means of a capillary viscosimeter. Pishch.  
prom. no.2:77-82 '65. (MIRA 18:11)

BOGOLEVYUESKIY, N.; BORISOV, S.; GRIGOR'IEV, N.; GUSAROV, M.; GUSEV, L.;  
ZHAROV, S.; ZHETVIN, N.; ZALOGIN, S.; ZOLOTOV, O.; KHOZEMTSOV, E.;  
KLEMENT'IEVA, A.; KOMAROV, A.; KOSMACHEV, V.; LAPTEV, V.; LOMONOSOV, V.;  
MIKHAYLOV, A.; NOVIKOV, I.; PERTSEV, M.; PROKOF'EVICH, P.; ROMANOV, I.;  
RUBLINSKAYA, R.; SVIRIDOV, G.; SOTNIKOV, G.; SUBBOTIN, A.; TURTANDOV, I.;  
CHESNOKOV, S.; CHICHKIN, E.; CHIKHANOV, I.

Grigorii Markelovich Il'in; an obituary. Metallurg 3 no.10:36 0 '58.  
(MIRA 11:10)

(Il'in, Grigorii Markelovich, 1894-1958)

ZOLOTOV, G., val'tsovshchik, Geroy Sotsialisticheskogo Truda, deputat  
Verkhovnogo Soveta RSFSR.

Heroic deeds of our days. Sov. profsoiuzy 17 no.7:4-6 Ap '61.  
(MIRA 14:3)

1. Zavod "Serp i molot."  
(Moscow—Steelworkers) (Socialist competition)

ZOLOTOV, I.G.

Testing unit for checking gas meters with parallel nozzles.  
Gaz. prom. 8 no. 3:30-32 '63 (MIRA 17:7)

ACC NR: AP7004574

SOURCE CODE: UR/0203/66/006/003/0556/0567

AUTHOR: Zolotov, I. G.

ORG: Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation,  
LO, AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln  
LO AN SSSR)

TITLE: Representation of the geomagnetic field using multipoles

SOURCE: Geomagnetism i aeronomiya, v. 6, no. 3, 1966, 556-567

TOPIC TAGS: geomagnetic field, geophysics

ABSTRACT: The paper cited below presents an algebraic method for determining the parameters of multipoles. The author has determined the parameters of second-, third-, and fourth-order multipoles for a number of spherical analyses of the geomagnetic field for the period 1829-1958. The changes of the parameters of the multipoles during this period are considered. There is a discussion of the westerly drift of the geomagnetic field and the presence of other drift components. The author thanks V. I. Pochtarov for suggesting the problem and for his interest in this work. The author also thanks T. A. Agekyan for discussions of the mathematical portion of this work and V. I. Kolesova for assistance with the computations. Orig. art. has: 5 figures, 10 formulas and 4 tables. [JPRS: 38,937]

SUB CODE: 08 / SUBM DATE: 19Apr65 / ORIG REF: 007 / CTH REF: 003

UDCA 550.383

0926 1416

Card 1/1

METALLOVA, V.V.; ZOLOTOV, I.G.; FAYNBERG, F.S.

Results of studies of the magnetic properties of trap rocks from  
the southern Siberian Platform. Uch.zap.IGU no.303:38-48 '62.  
(MIRA 15:11)

(Siberian Platform—Rocks—Magnetic properties)

ZOLOTOV, I.I.

Control circuit of lifting jacks for streetcars. Rats. predl. na  
gor. elekrotransp. no.9:14-15 '64.

(MIRA 38:2)

1. Depo imeni Skorokhodova Tramvayno-trolleybusnogo upravleniya  
Leningrada.

ACC NR: A17008939

SOURCE CODE: UR/D203/06/006/005/0951/0953

AUTHOR: Zolotov, I. G.

ORG: Leningrad Department, Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation, AN SSSR (Institut zemnogo magnetizma ionosfery i rasprostraneniya radiovoln AN SSSR, Leningradskoye otdeleniye)

TITLE: Westerly drift of the earth's non-dipole magnetic field and solar activity

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 5, 1966, 951-953

TOPIC TAGS: earth magnetic field, solar activity

SUB CODE: 08,03

## ABSTRACT:

A study has been made of the temporal changes of the rate of westerly drift of the non-dipole geomagnetic field and its dependence on solar activity. For determining the rate of westerly drift of the non-dipole field the author uses the method proposed by T. Yukutake (Bull. Earthq. Res. Inst., 40, 1, 1962). He derived formulas for determining the rate of westerly drift with integration along circles of latitude. The mean rate of drift is computed for each circle of latitude. The author, on the other hand, has determined the mean rate of drift of the magnetic field for the earth as a whole and therefore integration was for the entire earth's surface. A formula is derived for determining the mean velocity of westerly drift of the non-dipole field. The formula shows that for determining the rate of drift for any epoch it is necessary to have a set of Gauss coefficients for this epoch of both the earth's magnetic field and its secular variations. The re-

Card 1/2

UDC: 523.745:550.389

0929 1784

ACC NR: AP7008939

sult of computation of the rate of westerly drift computed in this way is shown in a figure. With a probability of 90% it can be stated that there is a negative correlation of the rate of westerly drift of the non-dipole part of the geomagnetic field and solar activity. For explaining this dependence there are two facts of primary importance: 1) with an increase of solar activity the rate of westerly drift decreases; 2) this dependence is observed not only for the total field, but also for its inner part. This correlation constitutes an important link in the problem of solar-terrestrial relationships. Orig. art. has: 1 figure and 3 formulas. [PPS: 38,677]

Card 2/2

ZOLOTOV, I.N.

Regulating the wages in the head mechanic's sections. Tekst. prom.  
17 no. 5:59-60 My '57. (MLBA 10:6)

1. Nachal'nik otdela truda i zarabotnoy platy Yelgavskoy t'opolya-  
dil'noy fabriki.  
(Textile machinery--Maintenance and repair) (Wages)

ZOLOTOV, L. A.

ZOLOTOV, L. A. --"Investigation of the Effect of the Surface Roughness of Section Tubes on the Pressure Losses and Efficiency of Turbines." (Dissertations for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions) Min of Higher Education USSR, Moscow Order of Lenin Power Inst imeni V. M. Molotov, Moscow-Leningrad, 1955

SO: Knizhnaya Letopis', No. 25, 18 Jun 55

\* For Degree of Candidate in Technical Sciences

L 11589-66 ENT(m)/EWP(t)/EWP(b)/EWA(h)  
ACC # AR6000373

SOURCE CODE: UIC/0286/05/000/021/0091/0091

AUTHORS: Shaposhnikov, A. P.; Zalatov, I. N.; Suvareva, T. S.; Borukhin, D. Y.;  
Makarova, L. N.; Buchenkov, F. I.; Markov, F. F.

ORG: none

TITLE: Method for correcting the chemical composition of fused metallurgical glasses.  
Class 60, No. 176197

SOURCE: Byulleten' izobreteniij i tovarnykh znakov, no. 21, 1965, 91.

TOPIC TAGS: slag, synthetic slag, metallurgical process, metallurgy

ABSTRACT: This Author Certificate presents a method for adjusting the chemical composition of fused metallurgical glasses. The authors propose to add to the composition of the glass mixture of fused slag and other materials which are available in metallurgical enterprises. The latter are selected so that their melting temperature is below the temperature of the glass. Silica, bauxite, basalt, amesite, power plant ash, and similar materials are used as additives. The amount of each is determined by the their respective melting points and the amount of the base to be added. The amount of additives is taken by 40% of the total mass of the mixture.

SUB CODE: 11/ SUBM DATE: 19Jun62

Card 1/1 HUO

UIC: 669.051.02+669.045.58

SHAPOSHNIKOV, A.P.; ZOLOTOV, I.N.

Cast stone pipe. Stek. i ker. 22 no. 3:2-3 Mr '65.

(MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut stekla (for Shaposhnikov). 2. Moskovskiy optynnyy zavod steklokrystallicheskikh materialov i kamennego lit'ya (for Zolotov).

14(6)

SOV/112-59-1-486

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 1, p 64 (USSR)

AUTHOR: Zolotov, L. A.

TITLE: Discharges Through the Unfinished Building of the Irkutsk Hydroelectric  
Station During Dam-Construction Work on the Angara River

PERIODICAL: Tr. N.-i. sektora Mosk. fil. in-ta "Orgenergostroy," 1957,  
Nr 1, pp 36-46

ABSTRACT: Bibliographic entry.

Card 1/1

ZOLOTOV, L.A., kand.tekhn.nauk; SEMENKOV, V.M., inzh.

Hydraulic investigation of a new type of concentrated-fall hydro-electric power station. Trudy Nauch.-issl.sekt.Mosk.fil.Inst.

"Orgenergostroi" no.3:71-82 '59. (MIRA 14:7)  
(Hydroelectric power stations)

Zolotov, L.A.

AYVAZ'YAN, V.G., doktor tekhnicheskikh nauk, professor; ZOLOTOV, L.A., kandidat tekhnicheskikh nauk; SEMENOV, V.N., inzhener.

Increasing the capacity of pressure spillways of "integral" hydroelectric power stations during maximum flood discharge. Gidr. strel. 26 no.3:15-20 Mr '57. (Hydroelectric power stations) (MIRA 10:4)

BELYAYEV, A.A.; ZOLOTOV, L.V.

Surgical tactics in perforations of the uterus with injury to the internal organs.. Khirurgiia 35 no. 5:98-103 Ny 1959.

(MIRA 13:10)

1. Iz 1-y khirurgicheskoy kliniki (zav. - prof. S.V. Lobachev)  
Moskovskogo gorodskogo nauchno-issledovatel'skogo instituta  
skoroy pomoshchi im. Sklifosovskogo (dir. - zasluzhennyj vrach  
USSR M.M. Tarasov, glavnnyj khirurg - prof. B.A. Petrov).  
(UTERUS—RUPTURE) (VISCERA—WOUNDS AND INJURIES)

BELYAYEV, A. A.; ZOLOTOV, L. V.

Emergency repeated laparotomy. Vest. khir. no.4:20-27 '62.  
(MIRA 15:4)

1. Iz Moskovskogo gorodskogo ordena Trudovogo Krasnogo Znameni  
nauchno-issledovatel'skogo instituta skoroy pomoshchi im. N. V.  
Sklifosovskogo (dir. - zasluzh. vrach UkrSSR M. M. Tarasov).

(ABDOMEN—SURGERY)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065410016-6

ZOLOTOV, L. V.

Postoperative intra-abdominal hemorrhage. Khirurgia 36 no.2  
40-46 F '60.  
(OPERATIONS, SURGICAL) (HEMORRHAGE) (MIRA 13:12)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065410016-6"

VERESHCHAGIN, V.N., otv.red.; KRASNYI, L.I., otv.red.; VLASOV, G.M., red.;  
ZOLOTOV, M.G., red.; ZHAMOYDA, A.I., red.; KIPARISOVA, E.D., red.;  
MODZALEVSKAYA, red.; OMIKHIMOVSKYE, V.V., red.; SAVHABOV, N.P.;  
CHEMEKOV, Yu.F.; SKVORTSOV, V.P., red.; AVERKIEVA, T.A., tekhn.red.

[Resolutions of the Interdepartmental Conference on the Elaboration of Standard Stratigraphic Systems for the Far East] Resheniya soveshchaniya Mezhdromatvennogo soveshchaniya po razrabotke unifitsirovannykh stratigraficheskikh skhem dlya Dal'nego Vostoka. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedor, 1958. 51 p. (MIRA 12:3)

1. Mezhdromatvennoye soveshchaniye po razrabotke unifitsirovannykh stratigraficheskikh skhem dlya Dal'nego Vostoka. Khabarovsk, 1956.
2. Predsedatel' Orgkomiteta Mezhdromatvennogo soveshchaniya po razrabotke unifitsirovannykh stratigraficheskikh skhem dlya Dal'nego Vostoka (for Krasnyy). (Soviet Far East--Geology, Stratigraphic)

ZOLOTOV, M.N.,  
A. V. FROST, ACTA PHISCHIM 1, 511-20 (1934)

18(5)

SOV/128-59-4-7/27

AUTHOR: Layko, F.M., and Zolotov, N.A., Engineers

TITLE: Automating the Charging of Coke Into the Cupola

PERIODICAL: Liteynoye Proizvodstvo, 1959, Nr 4, pp 12-14 (USSR)

ABSTRACT: In the foundry for malleable cast iron of the Likha-chev Auto Plant, an installation was built which mechanizes the sieving process, and provides for the transport and automatic charging of coke into the cupola. Figures 1-3 give a detailed description of this installation. It has a special charging window which is opposite the usual charging window of the cupola. The frame of the window and the gate valve are water cooled. The mechanization of the coke and lime stone charging is saving much heavy physical labor. Wagons, cranes, and other machinery are now become superfluous. The coke consumption is kept low, and the output of the cupola is raised by 10-15%, because there are no more interruptions of its operation, which are unavoidable when charging manually. There are 2 diagrams and 1 photograph.

Card 1/1

Mechanism of hydrolysis of titanom sulfates. B. A. Tsarev and N. N. Zolotov. *Byull. Obsnogo Opt. Lektronoskopicheskogo Instituta*, 1939, No. 8, 10-17.—The colloidality of solns. was studied (1) by counting the no. of particles per vol. of soln. by means of an ultramicroscope and (2) by nephelometry. The 2nd method was superior to the 1st. A part of the soln. filtered through a layer of metatitanic acid was used as a standard. Thus solns. having an acid factor ( $F$ ) of 1.6-4.8 were studied after standing for 6 months. When  $F = 4.8$  the colloidality was 11.2, while when  $F = 1.6$  the degree of colloidality reached 180.0. A similar effect was noticed in solns. in concns. of 80-250 g./L. A decrease in concn. greatly increases the degree of colloidality.

David Achony

**APPROVED FOR RELEASE: 03/15/2001**

CIA-RDP86-00513R002065410016-6"

PROKOF'YEVA, M.T., doktor veterinarnykh nauk; DOROSHKO, I.N., kand.  
veterinarnykh nauk; GUROVA, Ye.I., kand.veterinarnykh nauk;  
ZOLOTOV, N.N., veterinarnyye vrachi

Use of furazolidone in the pullorum disease and paratyphoid fever  
of poultry. Veterinariia 38 no.1:41-46 Jan '61. (MIRA 15:4)

1. Ukrainskiy NIIEV.  
(Oxazolidinone) (Poultry—Diseases and pests)  
(Pullorum disease)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065410016-6

ZOLOTOV, N. N., IGNATOV, V. A., PROKOF'YEVA, M. T., DOROSHKO, I. M., GUROVA, E. I.  
→Veterinary Surgeons, Ukrainian NIIEV.

"Application of Furasolidone in Pullorum Disease and Paratyphoid of Fowls."

Veterinariya, Vol. 38, No. 1, p. 41, 1961.

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065410016-6"

1. ZOLOTOV, N. N.: PROKOF'YEVA, M. T.: DOROSHKO, I. N.
2. USSR (600)
4. Antigens and Antibodies
7. Importance of local strains for increasing the sensibility of the pullorum disease antigen. Nauch.trudy UIEV, 18, 1951.
9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

1. PROKOF'YEVA, M. T. and DOROSHKO, I. N. and ZOLOTOV, N. N.
2. USSR (600)
4. Pullorum Disease
7. Importance of local strains for increasing the sensibility of the pullorum disease antigen. Nauch.trudy UIEV 18 1951.
9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065410016-6

"About the role of a deep permanent litter in epizootiology of hen  
pullorum disease and tuberculosis."

Veterinariya, Vol. 37, No. 5, 1960, p. 28

Zolotov - Vet. Dr.

Ukr. Sci. Res. Inst. Experimental Vet.

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065410016-6"

Activity and structure of copper-catalyzed catalyst for the decomposition of methanol. N. N. Zolotov and M. I. Shapiro. *J. Russ. Chem. (U. S. S. R.)*, 6, 679-83 (1934). The ZnO-CuO catalyst used for the decompositon of MeOH undergoes reduction at not less than  $220^\circ$ , the CuO being reduced completely and the ZnO partly. In consequence, a-brass is formed, the Zn content of which increases with duration of contact. B. C. A.

H. C. A.

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**APPROVED FOR RELEASE: 03/15/2001**

**CIA-RDP86-00513R002065410016-6"**

**Influence of the method of manufacture of titanium oxide-calcium sulfate pigment on its properties.** B. A. Rubin, N. N. Zolotov and N. F. Kapustina. *Zhurn. Obrabotki Metallov i Zashch. Prom.* 1939, No. 8.  $TiO_2$ - $CaSO_4$  crystals grow in aqu. or 10%  $H_2SO_4$  medium. Cold 16%  $H_2SO_4$  does not hydrate  $CaSO_4$ . Anhyd.  $CaSO_4$  of fine structure was obtained on boiling aqu.  $CaSO_4$  with 10%  $H_2SO_4$ . This  $CaSO_4$  is very readily hydrated.  $CaSO_4$  having different appearances under the microscope shows no differences in painting properties. The factor having the greatest influence on the pigment properties of the mixed pigment is the initial temp. of the  $Ti(SO_4)_2$  soln. At 60° a much greater covering power than at either 20° or 80° is obtained. A mixt. of  $TiO_2$  and  $CaSO_4$  gives almost as good a pigment as the pigment obtained by the hydrolysis of  $Ti(SO_4)_2$  on a suspension of  $CaSO_4$ . A 2-4 hr. ignition of the pigment at 900° gave it the best properties. David A. Johnson.

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**APPROVED FOR RELEASE: 03/15/2001**

CIA-RDP86-00513R002065410016-6"

Activity and structure of copper-zinc catalysts for the decomp. of methyl alcohol. N. N. Bokov and M. I. Sosulin. J. Russ. Chem. Phys., No. 6, 672-680.— $\text{InO}_2/\text{CuO}$  catalyst used for the decomp. of  $\text{MeOH}$ : undergoes reduction at  $< 220^\circ$ , the  $\text{CuO}$  being reduced completely, and the  $\text{InO}_2$  partly. In consequence, zinc is formed, the Zn content of which increases with duration of contact. R. T.

A metal card with a grid of holes used for library classification. The card has a header section at the top with fields for 'CLASSIFICATION NUMBER', 'SERIAL NUMBER', 'ITEM NUMBER', and 'CALL NUMBER'. Below this is a large grid of holes, with rows labeled from 0 to 9 and columns labeled from A to Z. The holes are punched in a specific pattern to represent a classification number.

ACC NR: AR6024044

SOURCE CODE: UR/0044/66/000/004/W031/V031

AUTHOR: Golyand, I. I.; Zolotov, O. M.; Rotov, Ye. G.; Simelevnikov, D. Ye.

TITLE: The modernization of the digital computer "Ural-1" 1/6

SOURCE: Ref. zh. Matematika, Abs. 4V188

REF SOURCE: Sb. Vopr. vychisl. matem. i vychisl. tekhn. Rostov-na-Donu, Rostovsk. un-t, 1965, 123-135

TOPIC TAGS: computer design, computer research, computer technology, digital computer, computer circuit

ABSTRACT: The description of numerous changes introduced into the circuit of the digital computer "Ural-1", used at the computer center of the RGU, is presented. The new operations introduced are: summation over the "unit" modulus; "arithmetic shift"; additional modification of the operation of conditional control transmission; and the improvement of the circuit of the control register. It is shown that these changes allow a widening of the class of problems which may be solved. Numerous changes were introduced with the aim of increasing the reliability and simplifying the exploitation. The time diagram of the counter within the block of the address of the number NMB has been stabilized, and the blocking of the recording over the senior-junior addresses has become more reliable; changes were carried out also within the block of synchronization NML, and the false zone determination was blocked; germanium and copper oxide

UDC: 681.142.001.3:51

Card 1/2

ACC NR: AR6024044

diodes were substituted by silicon diodes, and the like. [Translation of abstract]  
11. illustrations. V. Zhdanov.

SUB CODE: 09

Card 2/2

ZOLOTOV, Oleg Mikhaylovich, insh.; SINEL'NIKOV, Dmitriy Yefimovich, insh.

Conversion of the group summation operation of the "Ural I" computer to calculation of periodic functions. Izv. vys. ucheb. zav.; elektromekh. 5 no.7:817 '62.

(MIRA 15:10)

1. Vychislitel'nyy tsentr Rostovskogo gosudarstvennogo universiteta.

(Electronic calculating machines)

ACC NR: AR6026619

SOURCE CODE: UR/0372/66/000/004/V031/V031

AUTHOR: Golyand, I. I.; Sinel'nikov, D. Ye.; Zolotov, O. M.; Rotov, Ye. G.

TITLE: Modernizing the Ural-1 digital electronic computer

SOURCE: Ref. zh. Kibernetika, Abs. 4V188

REF SOURCE: Sb. Vopr. vychisl. matem. i vychisl. tekhn. Rostov-na-Donu, Rostovsk. un-t, 1965, l23-l36

TOPIC TAGS: *ELECTRONIC COMPUTER, COMPUTER RELIABILITY,*  
electronic digital computer, digital computer, computer component, computer design / Ural-1 ~~electronic~~ digital computer

ABSTRACT: A number of modifications introduced in the scheme of the Ural-1 electronic digital computer used at the computer center of Rostov-on-Don State University is described. The following operations were introduced: modulo "unity" addition; "arithmetic shift"; additional modification of unconditional transfer; improvements of the control register circuit. It is pointed out that these alterations make it possible to broaden the class of solvable problems. A number of alterations was undertaken with the object of enhancing reliability and facilitating operation: the time diagram of the counter in the magnetic drum memory address

Card 1/2

UDC: 681.142.001.3:61

ACC NR: AR6026519

unit was stabilized, the reliability of write inhibition with respect to higher- and lower-order addresses was improved; the magnetic tape memory synchronizing unit was modified; mistakes in zone identification were blocked; germanium and cuprous-oxide diodes were replaced with their silicon counterparts, etc. ll fig. V. Zhdanov. {Translation of abstract}

SUB CODE: 09

Card 2/2

ZOLOTOV, P.A., dots., red.; ZOLOTOVA, P.A., red.

[Problems in hygiene in eastern Transbaikalia; scientific  
and practical works] Voprosy gigieny v Vostochnom Za-  
baikal'e; sbornik nauchno-prakticheskikh rabot. Chita,  
Chitinskii, gos. med. inst., 1962. 297 p. (MIRA 17:5)

EYCEPPTA MEDICA Sec 17 Vol 5/10 Public Health Oct 59

3035. DETERMINATION OF COMFORTABLE TEMPERATURES FOR CLASS-  
ROOMS ON A HYGIENIC BASIS (Russian text) - Zolotov P.A. - GIGI  
SAN 1958/11 (28-32) Tables I

At a constant air temperature, the microclimate is quite distinct for the different seasons of the year. Thus, in a classroom, at the same air temperature at various seasons of the year there may be different conditions for the body heat exchange of the pupils. Also, as there are definite seasonal changes in the processes of body metabolism, one may conclude that in a classroom during different stations of the year the same air temperature may not be of constant hygienic value. Therefore, the determination of optimum levels of temperature should be based on hygienic investigations carried out not during one season only, but for a whole year or, better still, for several years, and the standard temperatures should be different for each season.

ZOLOTOV, P.A., kand. med. nauk

Hygienic determination of comfortable temperatures in classrooms.  
Gigij i san. 23 no. 11:28-32 N '58. (MIR 12:8)

1. Iz kafedry obshchey gigiyeny Gor'kovskogo meditsinskogo in-  
stituta imeni S.M. Kirova.  
(SCHOOLHOUSES--HEATING AND VENTILATION)

ZOLOTOV, P. A.

Zolotov, P. A.

"The Hygienic Characteristics of the Microclimate of Classrooms with Eastern, Southern, Western, and Northern Exposures in the City of Gor'kiy." Gor'kiy State Medical Inst imeni S. M. Kirov. Gor'kiy, 1955 (Dissertation for the degree of Candidate in Medical Science)

SO: Knizhnaya letopis' No. 27, 2 July 1955

BELYAYEV, I.I., prof.; ZOLOTOV, P.A., dotsent

Concerning a review. Gig. i san. 26 no.8:96-98 Ag '61.  
(MIRA 154)

(PUBLIC HEALTH)

ZOLOTOV, P.A.

Ecological and seasonal changes in the skin temperature  
in man. Fiziol.zhur. 51 no.11:1343-1350 N '65.  
(MIRA 18:11)  
1. Meditsinskiy institut imeni S.M.Kirova, Gor'kiy.

BALAYEV, Lev Grigor'yevich; TSAREV, Petr Vasil'yevich; POPOV, I.V.,  
doktor geol.-miner. nauk, prof., otd. red.; ZOLOTOV, P.F.,  
red.izd-va

[Loess in central and eastern Ciscaucasia] Lessovye porody  
TSentral'nogo i Vostochnogo Predkavkaz'ia. Moskva, Izd-vo  
"Nauka," 1964. 247 p. (MIRA 17:4)

LAZAREV, L.P., doktor tekhn.nauk, prof., red.; ZOLOTOV, P.F., inzh.red.;  
VINOGRADSKAYA, S.I., izdat.red.; ORESHKINA, V.I., tekhn.red.

[Manufacture of optical instruments; collected articles] Opticheskoe priborostroenie; sbornik statei. Moskva, Gos.nauchno-tekhn. izd-vo Obrongiz, 1961. 125 p. (Moscow. Moskovskoe vyshee tekhnicheskoe uchilishche. Trudy, no.103). (MIRA 14:12)  
(Optical instruments)